

Wikwio agricultural project

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Title: Citizen science and expert community interactions using Wikwio, a weed knowledge portal, focused on southern Africa

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Abstract

The Wikwio agricultural project aims to build a community of stakeholders including extension agents, students, farmers and scientists with a focus on weed species of food and cash crop systems in southern African region. Interactions between the citizen and scientific communities, facilitated by a technology platform is a promising approach. After almost three years in existence and steady growth, the platform hosts information on about 420 weed species with a community of around 650 members from 19 countries.

A citizen science module on the Wikwio web platform enables people to contribute their observations about weeds. The module is interconnected with expert-curated species pages, spatial and documents modules that fosters interactions between citizen and scientific communities. These interactions improve the aggregation of scientifically validated data. For example, the citizen science module can inform scientists about the nature and level of occurrence of different weeds in different crop systems, their seasonality and distribution across the southern African region. In turn, the species pages module can inform extension agents and farmers about appropriate control measures for each species. Platform developers have built custom fields in the citizen science module to allow specific surveys to be commissioned by the scientific community. The comment stream in the same module can enable dialogue between the citizen and scientific communities allowing people to pose questions directly to experts to which experts can respond with additional details and clarifications. Active, wide and large-scale participation from diverse stakeholders in agricultural research and practice is building a vibrant Wikwio community around a facilitating technology platform and a shared scientific practice.